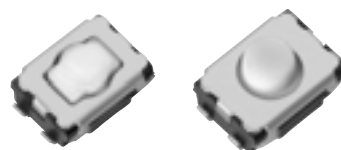


4.7 mm×3.5 mm SMD Light Touch Switches

Type: **EVQP2/EVQP9/EVQ3P2**



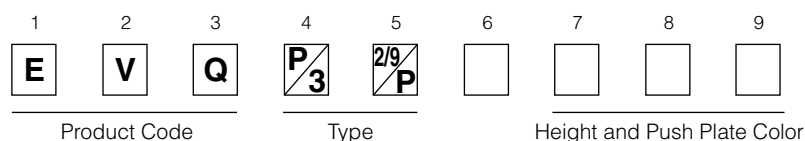
■ Features

- External dimensions : 4.7 mm×3.5 mm,
Height : Middle Push Travel 2.5 mm
Short Push Travel 2.1 mm, 2.5 mm
- High operating force and long operational life
- High mountability with J-bent (4 terminals)

■ Recommended Applications

- Operation switches for portable electronic equipment
(Mobile phones, Digital still cameras, Camcorders,
Portable audio players, etc.)
- Keyless entry systems (automotive)
- Car audio equipment

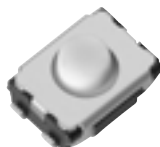
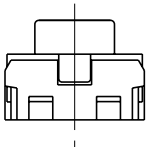
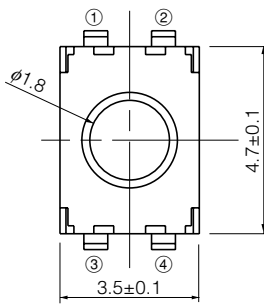
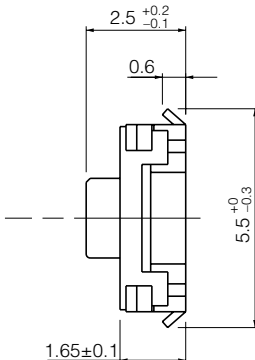
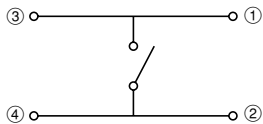
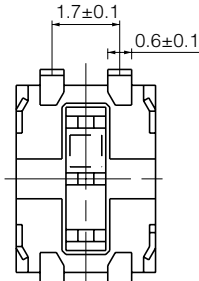
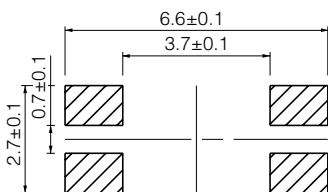
■ Explanation of Part Numbers



■ Specifications

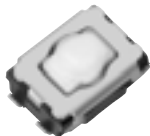
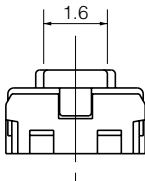
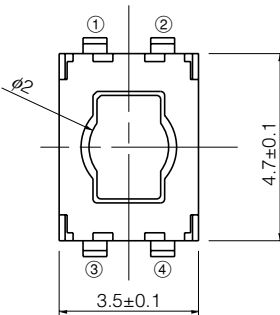
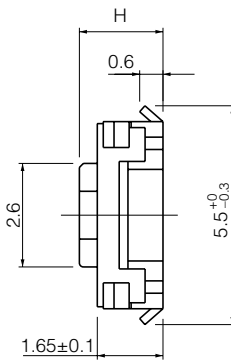
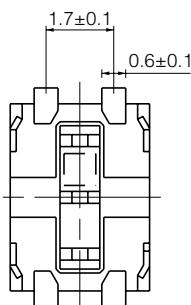
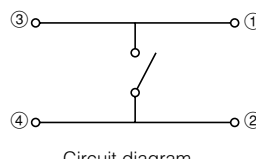
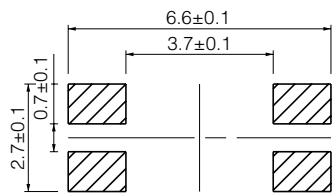
Travel Type		Middle Push Travel	Short Push Travel
Type		Snap action / Push-on type SPST	
Electrical	Rating	10 μ A 2 Vdc to 20 mA 15 Vdc (Resistive load)	
	Contact Resistance	100 m Ω max. / 1000 m Ω max. (Switch enduring high load)	
	Insulation Resistance	100 M Ω min. (at 100 Vdc)	
	Dielectric Withstanding Voltage	250 Vac (1 minute)	
	Bouncing	10 ms max. (ON, OFF)	
Mechanical	Operating Force	2.5 N, 3.5 N, 5.0 N	1.0 N, 1.6 N, 2.4 N, 3.5 N, 4.0 N, 5.0 N
	Travel	0.70 mm±0.20 mm	0.25 mm ^{+0.05} _{-0.15} mm
Endurance	Operating Life	2.5 N: 1000000 cycles min. 3.5 N: 500000 cycles min. 5.0 N: 200000 cycles min.	1.0 N, 1.6 N: 1000000 cycles min. 2.4 N: 500000 cycles min. 3.5 N: 200000 cycles min. 4.0 N: 200000 cycles min. 5.0 N: 200000 cycles min.
Operating Temperature		-40 °C to +85 °C	
Storage Temperature		-40 °C to +85 °C (Bulk) -20 °C to +60 °C (Taping)	
Minimum Quantity/Packing Unit		4000 pcs. Embossed Taping (Reel Pack)	
Quantity/Cartron		20000 pcs.	

■ Dimensions in mm (not to scale)

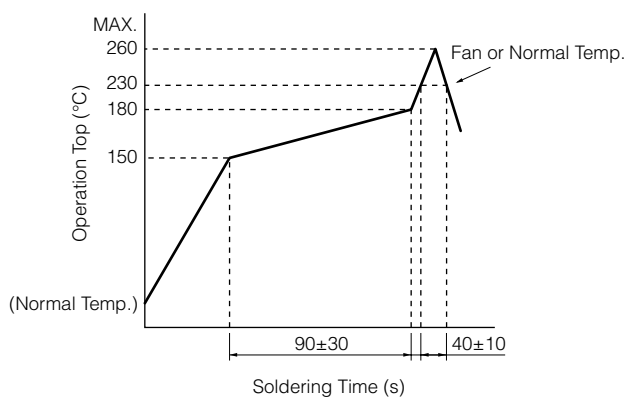
No. 1					
EVQP2 EVQ3P2					
Middle push travel With J-bent terminals (With Ground terminal)					
	(General dimension tolerance± 0.2)     Circuit diagram   PWB land pattern for reference				
Part Numbers	Ground Terminal	Operating Force	Height	Push Plate Color	Operating Life
EVQP2B02B	With	2.5 N	2.5 mm	Blue	1000000 cycles
EVQP2D02Q	With	3.5 N	2.5 mm	Gray	500000 cycles
EVQP2F02K	With	5.0 N	2.5 mm	Black	200000 cycles
EVQP2H02B	Without	2.5 N	2.5 mm	Blue	1000000 cycles
EVQP2K02Q	Without	3.5 N	2.5 mm	Gray	500000 cycles
EVQ3P202K	Without	5.0 N	2.5 mm	Black	200000 cycles

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

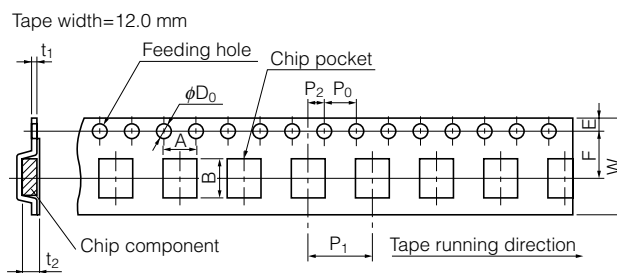
■ Dimensions in mm (not to scale)

No. 2								
EVQP2 EVQP9 Short push travel With J-bent terminals (With Ground terminal) 		(General dimension tolerance±0.2)						
				<table><tr><th>H</th></tr><tr><td>2.1^{+0.2}_{-0.1}</td></tr><tr><td>2.5^{+0.2}_{-0.1}</td></tr></table>		H	2.1 ^{+0.2} _{-0.1}	2.5 ^{+0.2} _{-0.1}
		H						
		2.1 ^{+0.2} _{-0.1}						
		2.5 ^{+0.2} _{-0.1}						
								
		 Circuit diagram						
		 PWB land pattern for reference						
Part Numbers	Ground Terminal	Operating Force	H=Height	Push Plate Color	Operating Life			
EVQP2P02M	With	1.0 N	2.1 mm	White	1000000 cycles			
EVQP2P02W	With	1.0 N	2.5 mm	White	1000000 cycles			
EVQP2R02M	With	1.6 N	2.1 mm	White	1000000 cycles			
EVQP2R02W	With	1.6 N	2.5 mm	White	1000000 cycles			
EVQP2T02M	With	2.4 N	2.1 mm	White	500000 cycles			
EVQP2T02W	With	2.4 N	2.5 mm	White	500000 cycles			
EVQP2V02M	With	3.5 N	2.1 mm	White	200000 cycles			
EVQP2V02W	With	3.5 N	2.5 mm	White	200000 cycles			
EVQP9H02M	With	5.0 N	2.1 mm	White	200000 cycles			
EVQP9H02W	With	5.0 N	2.5 mm	White	200000 cycles			
EVQP2002M	Without	1.0 N	2.1 mm	White	1000000 cycles			
EVQP2002W	Without	1.0 N	2.5 mm	White	1000000 cycles			
EVQP2202M	Without	1.6 N	2.1 mm	White	1000000 cycles			
EVQP2202W	Without	1.6 N	2.5 mm	White	1000000 cycles			
EVQP2402M	Without	2.4 N	2.1 mm	White	500000 cycles			
EVQP2402W	Without	2.4 N	2.5 mm	White	500000 cycles			
EVQP2602M	Without	3.5 N	2.1 mm	White	200000 cycles			
EVQP2602W	Without	3.5 N	2.5 mm	White	200000 cycles			
EVQP9W02W	Without	4.0 N	2.5 mm	White	200000 cycles			
EVQP9P02M	Without	5.0 N	2.1 mm	White	200000 cycles			
EVQP9P02W	Without	5.0 N	2.5 mm	White	200000 cycles			

■ Recommended Reflow Soldering Conditions



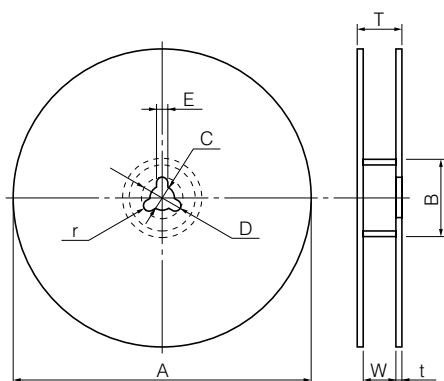
● Embossed Carrier Taping



Unit: mm

Part No.	Height	A	B	W	F	E	P ₁	P ₂	P ₀	D ₀ Dia.	t ₁	t ₂
EVQP2	2.1	6.0±0.2	4.7±0.2	12.0±0.3	5.5±0.1	1.75±0.10	8.0±0.1	2.0±0.1	4.0±0.1	1.5 ^{+0.1} ₋₀	0.3±0.1	2.7±0.2
EVQP9	2.5											
EVQ3P2												

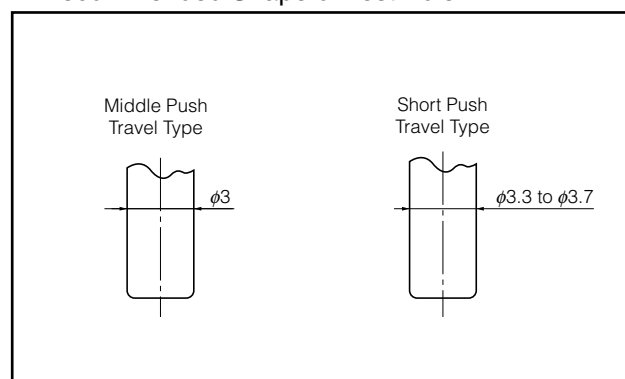
● Standard Reel Dimensions in mm (not to scale)



Item	A	B	C	D	E
Rate (mm)	φ370.0±2.0	φ50.0 min.	φ13.0±0.5	φ21.0±1.0	2.0±0.5

Item	W	T	t	r
Rate (mm)	14.0±1.5	—	1.0 to 3.0	1.0±0.5

■ Recommended Shape of Test Pole



■ Recommended Operating Conditions

